

What is claimed is:

[Claim 1] In a floor cleaner capable of cleaning both wet and dry floor surfaces comprising:

a base having a dry suction opening and a wet suction opening;

a handle pivotally connected to the base;

a recovery tank mounted to one of the handle and the base;

a working air conduit extending from each of the dry suction opening and the wet suction opening to the recovery tank;

a motor/fan assembly mounted to one of the handle and the base and adapted to create a working air flow in the working air conduit from at least one of the dry floor suction opening and the wet floor suction opening and to the recovery tank; and

a diverter mounted in the working air conduit and movable between a dry suction position and a wet suction position for selectively at least partially blocking working air flow from the dry suction opening and the wet suction opening , respectively, to the recovery tank;

the improvement comprising:

an actuator mounted on at least one of the handle and the base and operably connected to the diverter for selectively positioning the diverter in the dry suction position and the wet suction position.

[Claim 2] The floor cleaning apparatus according to claim 1 and further comprising an agitator movably mounted to the base for movement between a first position wherein the agitator is adapted to agitate a surface to be cleaned and a second position wherein the agitator is spaced from the surface to be cleaned for selectively agitating the floor surface, wherein the actuator is operably coupled to the agitator for selectively positioning the agitator in the first position and the second position.

[Claim 3] The floor cleaning apparatus according to claim 2, wherein the actuator is adapted to simultaneously position the diverter and the agitator in a preselected position.

[Claim 4] The floor cleaning apparatus according to claim 3 and further comprising a control element between the actuator and the diverter and between the actuator and the agitator for moving the diverter and agitator into:

a first mode wherein the diverter is in the dry suction position and the agitator is in the second position;

a second mode wherein the diverter is in the wet suction position and the agitator is in the first position; and

a third mode wherein the diverter is in the wet suction position and the agitator is in the second position.

[Claim 5] The floor cleaning apparatus according to claim 4 wherein the control element is further adapted to control movement of the diverter and agitator into a fourth operating mode wherein the diverter is in the dry position and the agitator is in the first position.

[Claim 6] The floor cleaning apparatus according to claim 2 and further comprising a control element mounted on the base or handle and operably connected to the diverter, the agitator and the actuator for selective movement of the diverter and the agitator responsive to movement of the actuator.

[Claim 7] The floor cleaning apparatus according to claim 6, wherein the control element comprises a diverter cam member adapted to control the position of the diverter and an agitator cam member adapted to control the position the agitator.

[Claim 8] The floor cleaning apparatus according to claim 7, wherein the control element further comprises a wheel with two sides, and wherein the diverter cam member and the agitator cam member are disposed on opposite sides of the wheel.

[Claim 9] The floor cleaning apparatus according to claim 6, wherein the actuator comprises a pull-pull cable operably mounted to the control element.

[Claim 10] The floor cleaning apparatus according to claim 9, wherein the actuator is disposed on the handle.

[Claim 11] The floor cleaning apparatus according to claim 6 and further comprising an agitator platform pivotally mounted to the base and mounting the agitator, and wherein the control element is operatively connected to the agitator platform for selective positioning the agitator in the first and second positions.

[Claim 12] The floor cleaning apparatus according to claim 11 and further comprising an agitator motor for driving the agitator, wherein the agitator motor is mounted on the agitator platform.

[Claim 13] The floor cleaning apparatus according to claim 1, wherein the recovery tank is mounted on the handle and the motor/fan assembly is mounted on the handle above the recovery tank.

[Claim 14] The floor cleaning apparatus according to claim 1 and further comprising a carry handle mounted on the handle.

[Claim 15] The floor cleaning apparatus according to claim 1 and further comprising:

a supply tank mounted to the handle for storing a supply of cleaning fluid; a dispenser mounted to the base for dispensing cleaning fluid onto the floor surface;

a supply conduit between the supply tank and the dispenser; and a heater mounted in the supply conduit for heating the cleaning fluid as it flows from the supply tank to the dispenser.

[Claim 16] A floor cleaner capable of cleaning both wet and dry floor surfaces comprising:

a base having a dry suction opening and a wet suction opening; a handle connected to the base;

a recovery tank mounted to at least one of the handle and the base;

a working air conduit extending from each of the dry suction opening and the wet suction opening to the recovery tank;

a motor/fan assembly mounted to at least one of the handle and the base to and adapted to create a working air flow in the working air conduit from at

least one of the dry floor suction opening and the wet floor suction opening to the recovery tank;
an agitator movably mounted to the base for movement between a first position wherein the agitator is adapted to agitate a surface to be cleaned and a second position wherein the agitator is spaced from the surface to be cleaned for selectively agitating the floor surface;
a diverter mounted in the working air conduit and movable between a dry suction position and a wet suction position for selectively at least partially blocking working air flow from the wet suction opening and the dry suction opening, respectively, to the recovery tank; and
an actuator on one of the handle and the base and operably connected to the diverter for selectively positioning the diverter in the dry suction position and the wet suction position and also connected to the agitator for selectively positioning the agitator in the first and second positions.

[Claim 17] The floor cleaner according to claim 16 wherein the actuator is adapted to simultaneously position the diverter and the agitator in preselected positions.

[Claim 18] The floor cleaning apparatus according to claim 16 and further comprising a control element between the actuator and the diverter and between the actuator and the agitator for moving the diverter and agitator into:

a first mode wherein the diverter is in the dry suction position and the agitator is in the second position;
a second mode wherein the diverter is in the wet suction position and the agitator is in the first position; and
a third mode wherein the diverter is in the wet suction position and the agitator is in the second position.

[Claim 19] The floor cleaning apparatus according to claim 18 wherein the control element is further adapted to selectively control movement of the diverter and agitator into a fourth operating mode wherein the diverter is in the dry suction position and the agitator is in the first position.

[Claim 20] The floor cleaning apparatus according to claim 16 and further comprising a control element mounted on the base or handle and operably connected to the diverter, the agitator and the actuator for selective movement of the diverter and the agitator responsive to movement of the actuator.

[Claim 21] The floor cleaning apparatus according to claim 20 wherein the control element comprises a diverter cam member adapted to control the position of the diverter and an agitator cam member adapted to control the position the agitator.

[Claim 22] The floor cleaning apparatus according to claim 21 wherein the control element further comprises a wheel with two sides, and wherein the diverter cam member and the agitator cam member are disposed on opposite sides of the wheel.

[Claim 23] The floor cleaning apparatus according to claim 20 wherein the actuator comprises a pull-pull cable operably connected to the control element.

[Claim 24] The floor cleaning apparatus according to claim 23 wherein the actuator is disposed on the handle.

[Claim 25] The floor cleaning apparatus according to claim 16 wherein the handle is pivotally connected to the base.

[Claim 26] A floor cleaner capable of cleaning both wet and dry floor surfaces comprising:

a base having a dry suction opening and a wet suction opening adapted to remove debris from a surface to be cleaned;
a handle connected to the base;
a recovery tank carried by the handle;
a working air conduit extending from each of the dry suction opening and the wet suction opening to the recovery tank;
a motor/fan assembly mounted to one of the handle and the base and adapted to create a working air flow in the working air conduit from at least one of the dry floor suction opening and the wet floor suction opening and to the recovery tank;

a diverter mounted in the working air conduit and movable between a dry suction position and a wet suction position for selectively at least partially blocking working air flow from the wet suction opening and the dry suction opening, respectively, to the recovery tank; and
an actuator on at least one of the handle and the base and operably connected to the diverter for selectively positioning the diverter in the dry suction position and the wet suction position.

[Claim 27] The floor cleaning apparatus according to claim 26 wherein the motor/fan assembly is mounted above the recovery tank.

[Claim 28] The floor cleaning apparatus according to claim 26, wherein the handle is pivotally connected to the base.

[Claim 29] The floor cleaning apparatus according to claim 26 and further comprising an agitator mounted to the base and movable between a first position wherein the agitator contacts the floor surface and a second position wherein the agitator is spaced from the floor surface for selectively agitating the floor surface, wherein the actuator is operably mounted to the agitator for selectively positioning the agitator between the first position and the second position.

[Claim 30] The floor cleaning apparatus according to claim 29, wherein the actuator is adapted to simultaneously position the diverter and the agitator in preselected positions.

[Claim 31] A floor cleaner capable of cleaning both wet and dry floor surfaces comprising:

a base for movement along a floor surface;
a nozzle assembly mounted to the base and having a dry suction conduit with a dry suction opening at one end thereof adjacent to the floor surface and a wet suction conduit with a wet suction opening at one end thereof adjacent to the floor surface and different from the dry suction opening;
a handle connected to the base;
a recovery tank mounted on one of the handle and the base;

a working air conduit extending from each of the dry suction opening and the wet suction opening to the recovery tank;
a motor/fan assembly mounted to one of the handle and the base and adapted to create a working air flow in the working air conduit from at least one of the dry floor suction opening and the wet floor suction opening and to the recovery tank;
wherein the wet suction conduit and the dry suction conduit are vertically juxtaposed to each other.

[Claim 32] The floor cleaner according to claim 31 wherein the wet and dry suction openings are horizontally juxtaposed to each other.

[Claim 33] The floor cleaner according to claim 31 wherein at least a portion of one of the wet suction conduit and the dry suction conduit are made of a translucent material so that the working air flow therethrough is visible to a user.

[Claim 34] The floor cleaner according to claim 31 wherein at least a portion of both of the wet suction conduit and the dry suction conduit are made of a translucent material so that the working air flow therethrough are visible to a user.

[Claim 35] The floor cleaner according to claim 31, wherein the nozzle assembly further comprises a squeegee disposed in the wet suction opening.

[Claim 36] The floor cleaner according to claim 31, wherein the nozzle assembly is removably mounted to the base.

[Claim 37] The floor cleaner according to claim 31 and further comprising:
a diverter mounted in the working air conduit and movable between a dry suction position and a wet suction position for selectively at least partially blocking working air flow from the wet suction opening and the dry suction opening, respectively, to the recovery tank; and

an actuator on at least one of the handle and the base and operably connected to the diverter for selectively positioning the diverter in the dry suction position and the wet suction position.